

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P589239

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589239
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-2STD-50-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

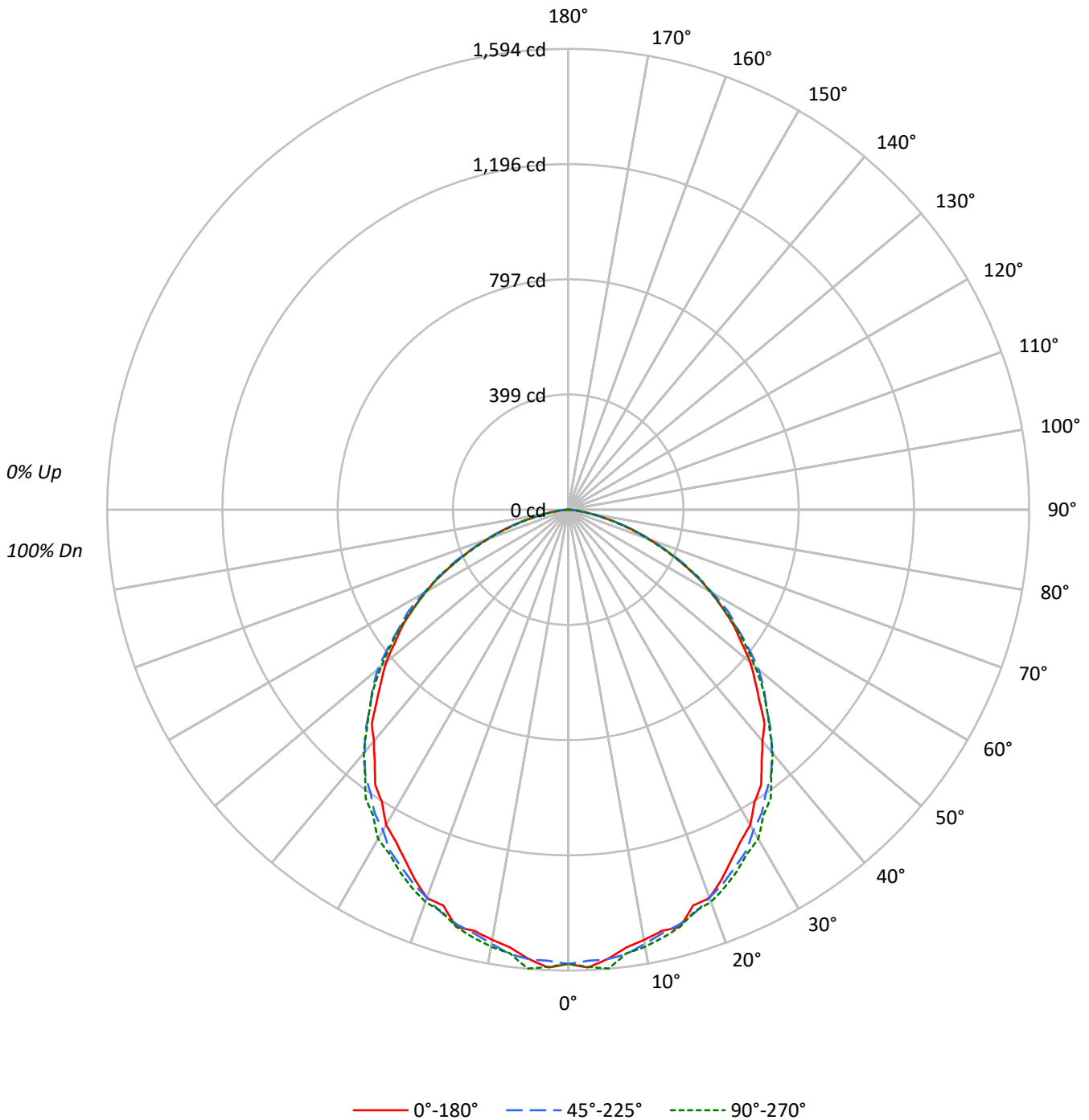
Lumens per Lamp: N/A
Luminaire Lumens: 3960.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4228	4228	4228
5°	4214	4216	4304
10°	4129	4165	4194
15°	4161	4139	4162
20°	4091	4091	4135
25°	3965	4052	4097
30°	3911	3979	4085
35°	3819	3919	4007
40°	3670	3847	3864
45°	3559	3686	3691
50°	3442	3598	3529
55°	3280	3344	3320
60°	3067	3097	3042
65°	2735	2804	2715
70°	2346	2354	2289
75°	1858	1854	1782
80°	1244	1210	1164
85°	676	670	627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.8	3.7
10°-20°	418.9	10.6
20°-30°	627.6	15.8
30°-40°	743.8	18.8
40°-50°	745.2	18.8
50°-60°	632.5	16.0
60°-70°	426.4	10.8
70°-80°	187.4	4.7
80°-90°	30.4	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1194.2	30.2
0°-40°	1938.0	48.9
0°-60°	3315.7	83.7
0°-90°	3960.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3960.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1571	1571	1571	1571	1571	
5°	1560	1556	1561	1556	1594	147
15°	1494	1476	1486	1493	1494	416
25°	1336	1343	1365	1383	1380	617
35°	1162	1166	1193	1220	1220	722
45°	935	953	968	994	970	723
55°	699	694	713	708	708	622
65°	430	424	440	424	426	427
75°	179	175	178	166	171	192
85°	22	21	22	21	20	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1571.2	1571.2	1571.2	1571.2	1571.2
2.5°	1584.8	1572.9	1561.7	1574.7	1582.6
5°	1560.1	1556.4	1560.7	1556.0	1593.5
7.5°	1528.0	1542.0	1550.1	1545.1	1547.3
10°	1511.0	1506.1	1524.2	1536.7	1534.9
12.5°	1492.7	1500.0	1501.0	1514.6	1515.8
15°	1493.7	1476.5	1485.6	1493.3	1493.9
17.5°	1435.7	1454.4	1460.7	1478.3	1456.4
20°	1428.6	1415.0	1428.6	1446.7	1443.8
22.5°	1385.0	1369.8	1399.0	1415.0	1414.0
25°	1335.5	1342.8	1364.7	1382.6	1379.7
27.5°	1292.1	1300.6	1331.8	1356.4	1340.6
30°	1258.6	1254.3	1280.7	1302.6	1314.8
32.5°	1198.8	1214.2	1245.0	1266.7	1255.2
35°	1162.4	1165.9	1192.9	1220.5	1219.7
37.5°	1098.9	1115.0	1152.9	1160.6	1153.5
40°	1044.8	1060.8	1095.1	1103.4	1100.0
42.5°	1004.8	1007.7	1037.1	1046.6	1031.4
45°	935.2	952.7	968.5	993.5	969.9
47.5°	876.0	884.1	918.2	924.9	912.5
50°	822.2	825.1	859.4	851.0	842.9
52.5°	754.7	766.6	785.9	784.3	774.8
55°	699.1	694.4	712.7	707.8	707.6
57.5°	632.3	640.5	655.5	647.8	635.4
60°	569.9	570.1	575.5	566.8	565.2
62.5°	500.3	502.7	503.9	493.2	510.6
65°	429.5	423.8	440.4	423.6	426.4
67.5°	364.4	367.2	365.6	355.0	359.1
70°	298.2	301.9	299.2	287.3	290.9
72.5°	237.8	233.3	236.1	221.1	228.0
75°	178.7	175.1	178.3	165.7	171.4
77.5°	121.7	124.6	122.5	115.8	119.7
80°	80.3	78.1	78.1	74.3	75.1
82.5°	46.9	44.6	44.0	42.8	44.6
85°	21.9	21.3	21.7	21.1	20.3
87.5°	7.9	8.1	8.1	7.7	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)